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NOTES ON GEOGRAPHIC DISTRIBUTION

Mnesithea granularis (L.) Koning & Sosef: A New Record to the flora of the Malwa Region, India

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ABSTRACT: A new record of *Mnesithea granularis* (L.) Koning & Sosef (Poaceae), collected for the first time from Malwa region (Madhya Pradesh and Rajasthan) India is presented. A detail description, up to date nomenclature, phenology, ecological notes and illustrations of this species have been presented.

Between 2008 and 2012 botanical surveys were undertaken in southern Rajasthan, where significant plant collections were acquired from the Malwa region, India. Geographically, the Malwa region is situated between 21°10′N to 25°09′ N Latitude and 73°45′ E to 79°13′ E Longitude and a plateau in western Madhya Pradesh and south-eastern Rajasthan. After a thorough survey of the literature, critical examination of collected material and with expert advice from authorities of the Indian Association of Angiosperm Taxonomy, several specimens determined as *Mnesithea granularis* (L.) Koning & Sosef (Poaceae) were confirmed, which had not previously been recorded from the Malwa region (Sharma and Tyagi 1979; Shetty and Pandey 1983; Singh 1983; Shetty and Singh 1993; Bhandari 1995; Samvatsar 1996; Prasad *et al*. 1996; Sharma 2002, Singh *el al*. 2001; Khanna *et al*. 2001; Tiagi and Aery 2007; Yadav and Meena 2011).

The genus *Mnesithea* Kunth, has been reduced from the genus *Coelorachis* Brongn. It is distributed throughout the tropics and about 32 species are currently known (Veldkamp *et al*. 1986), with only three species known from Maharashtra; namely, *Mnesithea clarkei* (Hack.) Koning & Sosef, *Mnesithea granularis* (L.) Koning & Sosef and *Mnesithea laevis* (Retz.) Kunth (Sharma *et al*. 1996). They are mostly found in warmer parts of the country. Previously only one species *Mnesithea laevis* (Retz.) Kunth has been reported from the Malwa region (Pandey, 1993, Khanna *et al*. 2001). An extensive field survey of the grasses from the Malwa region by the author has resulted in the discovery of a new record, which is described and illustrated in present paper. Moreover, the present paper deals with a detailed description, phonological data and illustrations of the species.

ENUMERATION

Mnesithea granularis (L.) Koning & Sosef, in blumea 31: 295, 1986; Singh et al Fl. Maharashtra State Monocot. 539. 1996. *Cenchrus granularis* L. Mant. 2, App. 575. 1771. *Manisuris granularis* (L.) L. *f*. Nov. Gram. Gen. 40. 1779; Duthie, Fodder Grasses 29.1884; Hook, *f*. Fl. Brit. India. 7 : 159. 1896; Cooke, Fl. Pres. Bombay 3: 473. 1958 (Repr. ed.); Blatt. & McC. Bombay Grass. 32. 1935. *Manisuris polystachya* P. Beauv., Fl. Owar & Benin. 1: 24, t. 14. 1805. *Hackelochloa granularis* (L.) O. Ktze. Rev. Gen. Pl. 2: 776. 1891; Bor, Grass Ind. 159. 1960. *Mnisuris porifera* Hack. in Oesterr. Bot. Zeitschr. 41: 48. 1891; Hook, *f. op. cit*. 160. *Hackelochloa porifera* (Hack.) Rhind, Grass. Burma 77. 1945; Bor, *op. cit.* 160. *Rytilix granularis* (L.) Skeels in U. S. Dept. Agric., Bur. Pl. Indus. 282: 20. 1913. (Figures 1 and 2).

Annual, erect, up to 30 cm high; culms much branched from base, nodes hairy. Leaves 3.5–8.5 x 0.3–0.7 cm, linear - lanceolate, acuminate; leaf sheath compressed, up to 2 cm long, margins hairy; ligules short, membranous, densely ciliate 1–2 mm long. Racemes 0.5–2.5 cm long, solitary, joints terete, linear-clavate, glabrous; spikelets paired. Sessile spikelet 1–1.5 mm, usually cream-colored at maturity; lower glume hemispherical, coarsely reticulate-rugose, pits shallow and separated by broad rounded ribs, the whole surface finely granular; upper glume hyaline below, thickening upward toward the crested apex; lower lemma hyaline; upper lemma hyaline, ca. 1.1 mm, upper palea as long. Pedicelled spikelet 1.5–2.5 mm, glumes with prominent green veins and whitish wings.

KEY TO THE SPECIES

1a. Perennial. Rhizome small. Stem up to 1.2 m high. Leaves 17–75 x 0.4 cm, linear from the narrow base. Pedicelled spikelets reduced to a minute glume. ..... ***Mnesithea laevis***
1b. Annual. Nonrhizomatous. Stem up to 30 cm high. Leaves 3.5 - 8.5 x 0.3 - 0.7 cm, linear – lanceolate. Pedicelled spikelet 1.5 - 2.5 mm. ..... ***Mnesithea granularis***

Specimens examined: India, Rajasthan, Chittaurgarh, village Karthana, Meena 7123, Pratap Garh district, village Achari, Meena 7236, Madhya Pradesh, Neemuch, village Jagepur, Meena 7246, village, Bambori, 7336 (MLVGCB Herbarium).

Fl. & Fr.: August - October.

Ecological Notes: Rare on gravelly soils, in open and wet grasslands. Extremely rare in waste lands, sites *Aristida adscensionis* L., *Indigofera linifolia* (L.*f*.) Retz., *Eragrostis tremula* Hochst. ex Steud. etc.. of moist sandy soil and wet places.

Distribution: Native to Western Australia distributed throughout the tropics. India: Andhra Pradesh, Madhya Pradesh, Maharashtra and Rajasthan (Figure 3).

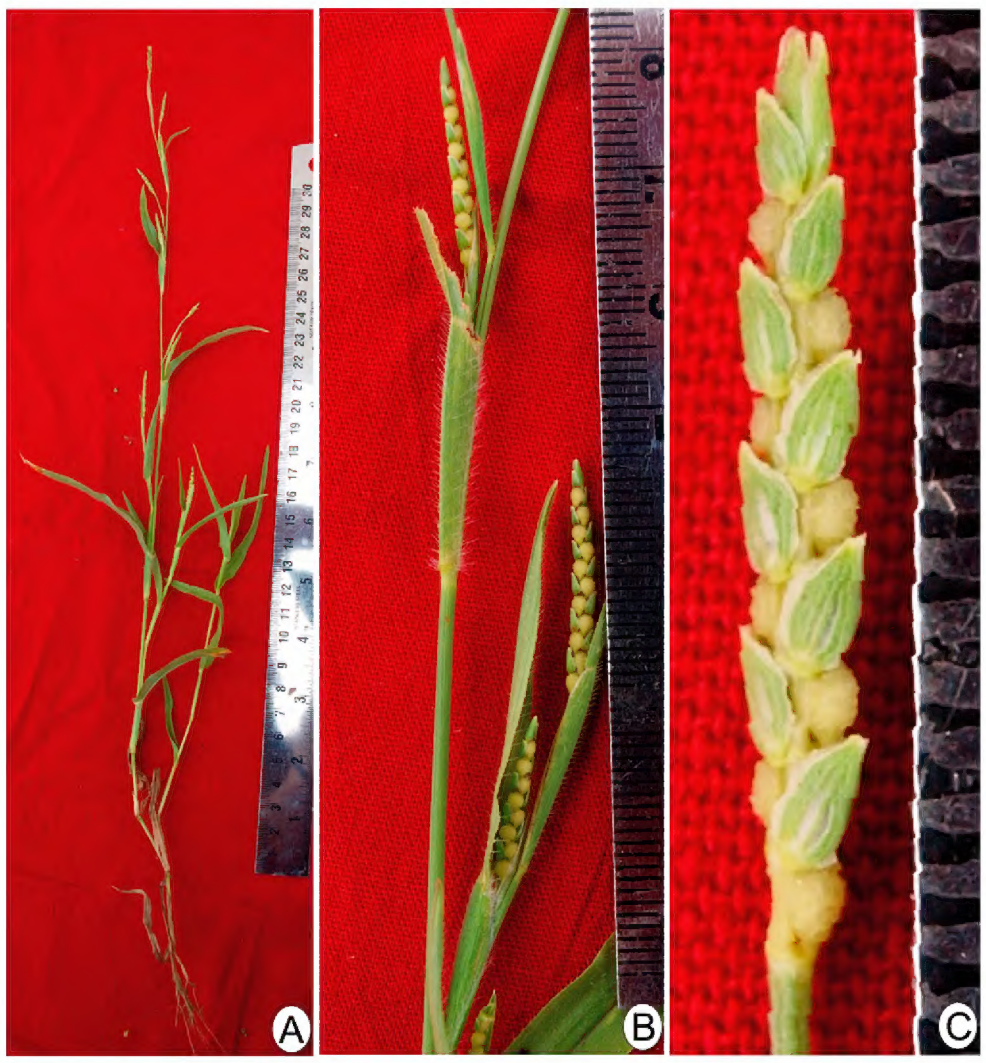

Figure 1. *Mnesithea granularis* (L.) Koning & Sesef. A) Habit; B) Racemes; C) Spike.

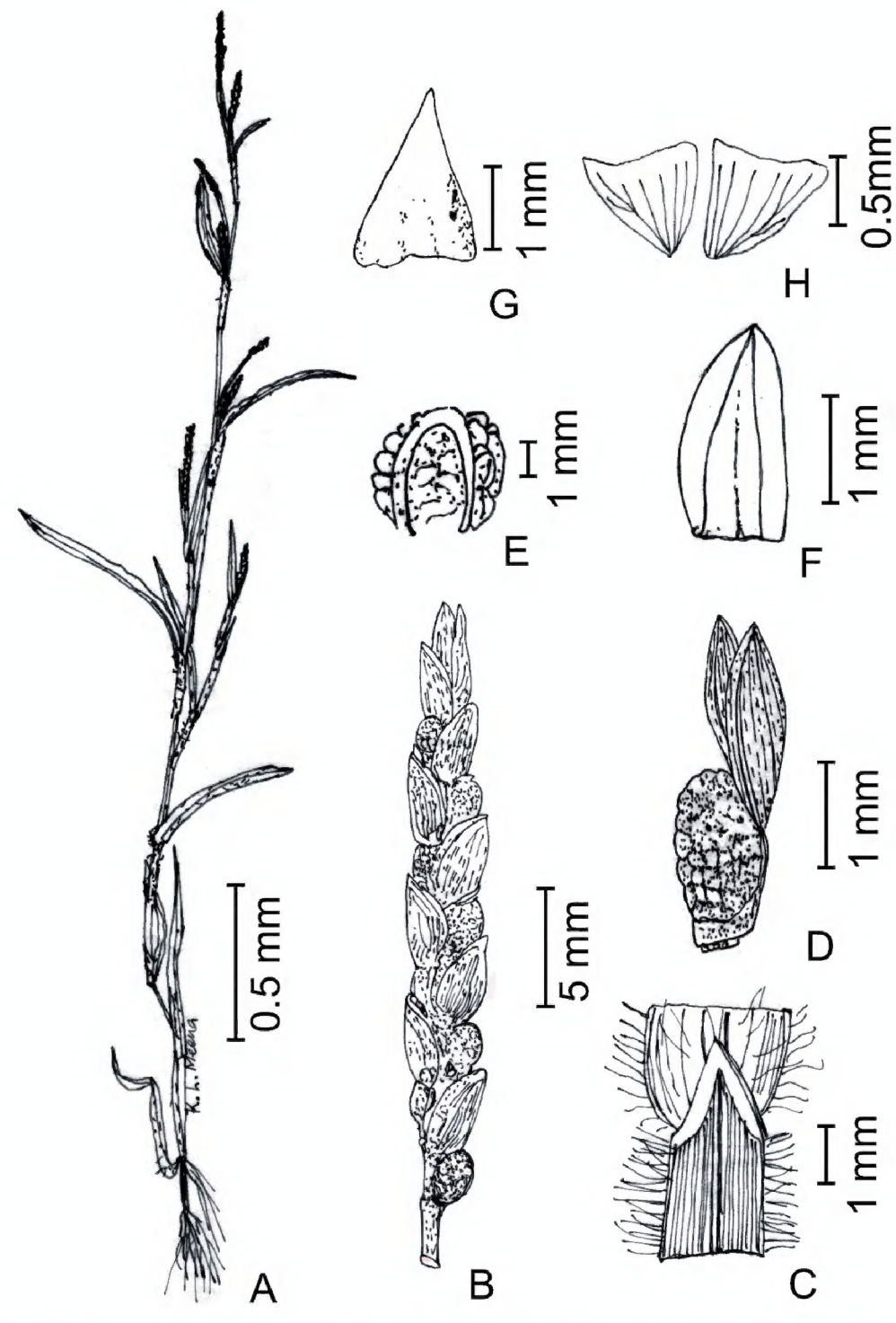

Figure 2. *Mnesithea granularis* (L.) Koning & Sesef. A) Habit; B) Spike; C) Lingule; D) Spikelet; E) Upper glume; F) Upper ligule; G) Plaea; H) Lodicules.

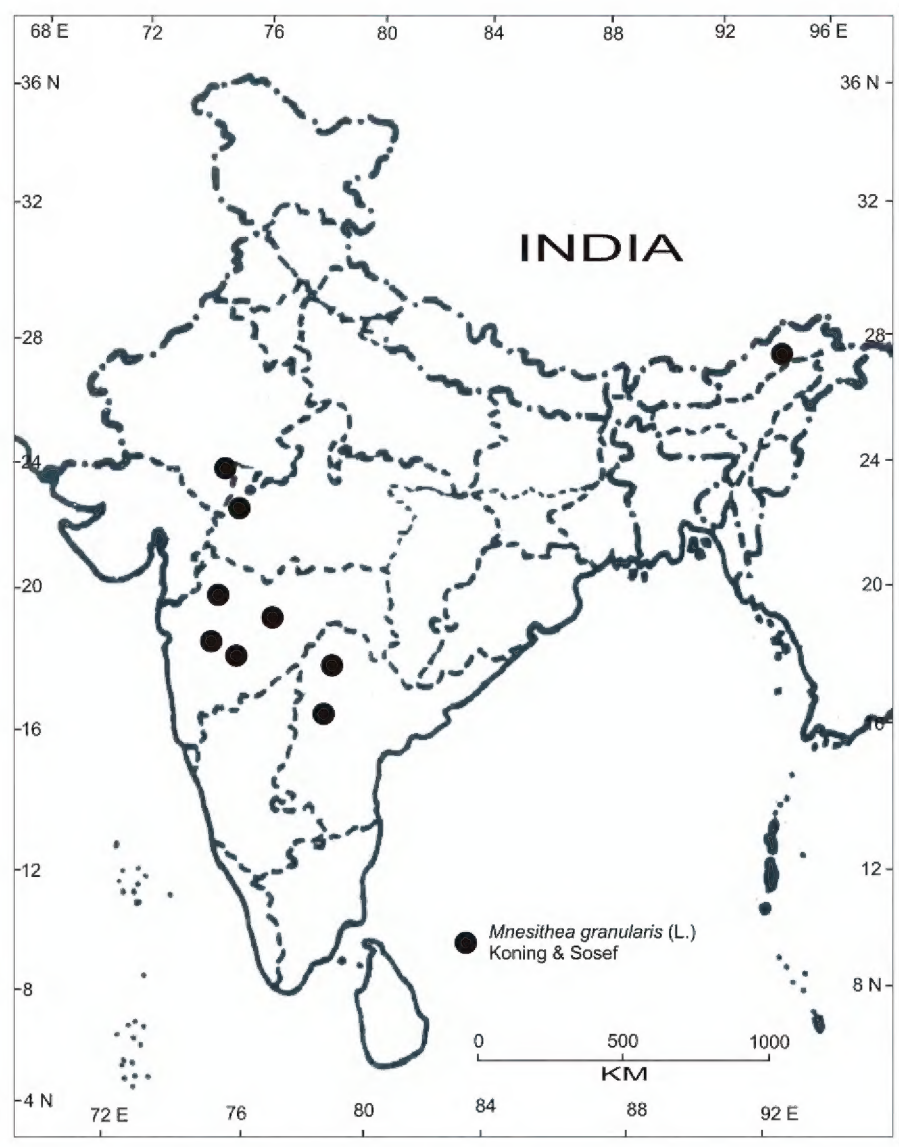

Figure 3. Current distribution of *Mnesithea granularis* (L.) Koning & Sosef in India.

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Literature Cited

Bhandari, M.M. (1995). *Flora of the Indian Desert*. Jodhpur: MPS Repros. 435 pp.

Khanna, K.K., A. Kumar, R.D. Dixit and N.P. Singh. 2001. *Supplement to the Flora of Madhya Pradesh*. Kolkata: BSI. 587 pp.

Prasad, V.P., M. Daneil, E.M. Joy and C.R. Ajit Kumar. 1996. *Illustrated Flora of Keoladeo National Park Bharatpur Rajasthan*. Bombay: Bombay Natural History Society. 435 pp.

Samvatsar, S. 1996. *Flora of Western tribal Madhya Pradesh*. Jodhpur: Scientific Publishers. 441 pp.

Sharma, B.D., S. Karthikeyan and N.P. Singh. 1996. *Flora of Maharashtra state, monocotyledons*. Kolkata: BSI.

Sharma, N.K. 2002. *Flora of Rajasthan*. Jaipur: Aavishkar Publishers Distributors. 280 pp.

Sharma, S. and B. Tyagi. 1979.. Flora of North-East Rajasthan. Kalyani Publishers, New Delhi. pp. 540.

Shetty, B.V. and R.P. Pandey. 1983. *Flora of Tonk District*. Howrah: BSI. 253 pp.

Shetty, B.V. and V. Singh. 1993. *Flora of Rajasthan* Vol III. Kolkata: BSI. 861–1246.

Shram, B.D., S., Karthikeyan and N.P. Singh. 1996. *Flora of Maharashtra State, Monocotyledons*. Kolkata: BSI. 794 pp.

Singh, N.P., K.K. Khanna, V. Mudgal and R.D. Dixit. 2001. *Flora of Madhya Pradesh*. Vol. III. Kolkata: BSI. 587 pp.

Singh, V. 1983. *Flora of Banswara District*. Howrah: BSI. 312 pp.

Tiagi, Y.D. and N.C. Aery. 2007. *Flora of Rajasthan (South & South-East Region)*. New Delhi: Himanshu Publications. 725 pp.

Veldkamp, J.F., R. de Koning, and M.S.M. Sosef. 1986. Generic delimitation of *Rottboellia* and related genera (Gramineae). *Blumea* 31: 281–307.

Yadav B.L. and K.L. Meena. 2011. *Flora of South Central Rajasthan*. Jodhpur: Scientific Publishers. 466 pp.

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